

REMARKS

The application has been reviewed and revised in light of the Office Action mailed on December 15, 2005. Claims 1-54 are currently pending in the application, with Claims 1, 23, 29, 51 and 53 being in independent form. By this amendment, Claims 1, 3, 5, 7, 13, 15-19, 21-23, 25-26, 29, 30-48 and 50-54 have been amended to fix clerical items, better define Applicants' invention and patentably distinguish over the prior art, Claim 28 has been cancelled, and Claims 55 - 57 have been added. No new matter or issues have been introduced by the amendments and new claims. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested. Accordingly, early and favorable consideration of this application is respectfully requested.

Rejection of Claims Under 35 U.S.C. § 102(e)

Claim 1 recites:

1. A method for exchanging a first sub-hierarchy of at least two sub-hierarchies of a hierarchical file system (HFS) with a second sub-hierarchy of the at least two sub-hierarchies, the HFS being accessible by at least one processor and having a root directory that is a parentless directory, the method comprising the steps of:

providing for the first sub-hierarchy to include a first root directory located in a first location occupied by the root directory of the HFS and a first plurality of files configured to branch therefrom;

providing for the second sub-hierarchy to include a second root directory located in a second location of the HFS that is not occupied by the root directory of the HFS and a second plurality of files configured to branch therefrom; and

providing for relocation of the second root directory from the second location to the first location. (Emphases added)

Claim 23 recites:

23. A computer system comprising:

a at least one processor;

at least one hierarchical file system (HFS) accessible to the at least one processor, the at least one HFS having at least two sub-hierarchies including first and second sub-hierarchies and a parentless root directory, wherein the first sub-hierarchy includes a first root directory located in a first location occupied by the root directory of the HFS and a plurality of files configured to branch therefrom, and the second sub-hierarchy includes a second root directory located in a second location of the HFS different from the first location and a second plurality of files configured to branch therefrom; and

a set of programmable instructions executable on the at least one processor for providing for exchanging the first sub-hierarchy with the second sub-hierarchy comprising:

receiving a request to exchange the first sub-hierarchy with the second sub-hierarchy; and

providing for relocating the second root directory from the second location into the first location and configuring the second plurality of files to branch therefrom responsive to the receipt of the request, the providing for relocating including providing for reconfiguring at least one pointer included in the HFS. (Emphases added)

Claims 1-14, 16-42 and 44-54 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication Number 2004/0133790 to Hensley

(hereinafter "Hensley"). The rejection with respect to Claims 1-14, 16-42 and 44-54 is respectfully traversed. Claim 28 has been cancelled.

Hensley describes an emergency boot directory containing a backup copy of a primary operating system, which is maintained in a protected, hidden subdirectory hierarchy during normal computer operations. A bootable media, which may be a removable media, contains bootstrap code operative to load and run the backup operating system if the primary operating system fails to boot and run (see Abstract). The emergency boot directory may be located within the same partition as the primary operating system files (see [0022], lines 6-9). The emergency boot directory is formed by making a copy of the primary operating system executable and configuration files by duplicating each of the original operating system files from the computer hard drive into the new emergency boot directory hierarchy (see [0022], lines 1-4). Next, the operating system configuration files that were copied to the new emergency boot directory hierarchy are modified to replace any references to the original operating system directory structure with references to the new emergency boot directory hierarchy (see [0023]).

A bootable removable media, such as a floppy diskette containing copies of the original operating system bootstrap files, such as BOOT.INI, NTLOADER AND NTDETECT.COM, or a CD-ROM or DVD disk conforming to the "El Torito" format, is created (see [0024], lines 1-7). The bootstrap configuration file BOOT.INI copied to the bootable removable media is modified to replace any references to the primary operating system directory structure with references to the new emergency boot directory. This file may be modified after it is copied or prior to being placed on the bootable removable media (see [0025]). A filter driver is provided and copied to the primary operating system subdirectory hierarchy. The computer is rebooted using the

primary operating system files to that the files system filter driver is loaded and operative to hide the emergency boot directory structure (see [0026]).

Once the emergency boot directory, filter driver and bootable removable media are prepared, a backup operation may be performed. The backup operating system files can be used to boot the computer if the existing bootstrap code within the master boot record or partition boot record becomes unusable, such as due to corruption (see [0030], lines 1-5). When a user decides to boot the computer using the backup operating system the user uses the bootable removable media to boot the computer so that the emergency boot directory will be used.

Hensley does not disclose or suggest, "providing for relocation of the second root directory from the second location to the first location", as recited in Applicants' Claim 1, or "receiving a request to exchange the first sub-hierarchy with the second sub-hierarchy; and providing for relocating the second root directory from the second location into the first location and configuring the second plurality of files to branch therefrom responsive to the receipt of the request, the providing for relocating including providing for reconfiguring at least one pointer included in the HFS", as recited in Applicants' Claim 23.

Hensley discloses copying and modifying files for creating the new operating system configuration and bootable removable media for future use, such as upon corruption of the primary operating system. Copying the primary operating system into a new emergency boot directory does not disclose or suggest relocating the second root directory from the second location to the first location, as recited by Applicants' Claims 1 and 23. Copying the original operating system bootstrap files for creating the bootable removable media does not disclose or suggest relocating the second root directory from the second location to the first location, as recited by Applicants' Claims 1 and 23. Modifying references in the copied primary operating

system configuration files (which were copied to the new emergency boot directory hierarchy) or the copied bootstrap configuration file BOOT.INI (which was copied to the bootable removable media) to replace any references to the primary operating system directory structure with references to the new emergency boot directory does not disclose or suggest relocating the second root directory from the second location to the first location, as recited by Applicants' Claims 1 and 23.

The bootable removable media may be used to boot the computer using the emergency boot directory. Hensley does not disclose or suggest relocating a root directory when booting the computer using the bootable removable media. On the contrary, the primary operating system and emergency boot directory described by Hensley are not relocated, but the modified bootable removable media accesses the emergency boot directory instead of the primary operating system due to modifications to references in the bootable removable media that were made before booting. Accordingly, Hensley does not disclose or suggest, "providing for relocation of the second root directory from the second location to the first location ", as recited by Applicants' Claim 1, or "providing for relocating the second root directory from the second location into the first location responsive to the receipt of the request", as recited by Applicants' Claim 23.

More specifically, Hensley does not disclose or suggest relocating or changing the location of the primary operating system or the emergency boot directory once the primary operating system and emergency boot directory are created. The addresses indicative of the locations of the primary operating system and the emergency boot directory are the same before and after booting using the bootable removable media, and the bootable removable media accesses the emergency boot directory at the location at which it was provided when originally created. On the contrary, in the method and system described by Applicants' Claims 1 and 23,

upon the relocation, the second root directory is addressed (e.g., located) using the address (e.g., the first location) of the first root directory.

The process of booting using the bootable removable media and emergency boot directory described by Hensley does not disclose or suggest, "receiving a request for providing for relocation of the second root directory to the first location", as recited by Applicants' Claim 23. Once the primary operating system, emergency boot directory and bootable removable media have been provided, Hensley boots the computer using the bootable removable media which has already been modified by replacement of references to the primary operating system with references to the new emergency boot directory for accessing the emergency boot directory. Furthermore, Hensley replaces references to the original operating system directory structure with references to the new emergency boot directory hierarchy when modifying the copied primary operating system and the copied bootstrap configuration file. Hensley does not disclose or suggest reconfiguring at least one pointer included in the HFS when relocating the second root directory responsive to receipt of the request for relocation of the second root directory to the first location that was occupied by the first root directory, as recited in Applicants' Claim 23.

Claims 29, 51 and 53 include the same or similar recitations as the recitations underlined above for amended Claim 1. Based at least on the above reasons, Applicants' independent amended Claims 1, 23, 29, 51 and 53 do not lack novelty and are patentably distinct over Hensley. Accordingly, withdrawal of the rejection with respect to amended Claims 1, 23, 29, 51 and 53 and allowance thereof are earnestly solicited.

Claims 2-14, 16-22; 24-27; 30-42, 44-50; 52; and 54 depend directly or indirectly from independent Claims 1, 23, 29, 51 and 53, respectively, and are therefore patentable for at least the reasons given above for independent Claims 1, 23, 29, 51 and 53.

In addition to at least the reasons given above for independent Claims 1 and 29, Hensley does not disclose or suggest wherein the “providing for the exchange is performed without copying content of the first and second plurality of files”, as recited by Applicants’ Claims 17 and 45.

Rejection under 35 U.S.C. § 103(a)

Claims 15 and 43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Hensley in view of U.S. Patent Application Publication Number 2002/0095548 to Mansur et al. (herein “Mansur et al.”). Claims 15 and 43 depend from Claims 1 and 29, respectively, and are therefore patentable for at least the reasons given above for independent Claims 1 and 29.

Mansur et al. describes a system and method for storage system controller configuration wherein a backup directory, containing more directories inside is used. Mansur et al. does not cure the deficiencies of Hensley. For at least the reasons described above, Applicants’ Claims 15 and 43 are also believed to be allowable over the cited references, taken alone or in any proper combination. Therefore, reconsideration and withdrawal of the rejection is respectfully requested an allowance of these dependent claims is earnestly solicited.

New Claims

New Claim 55 and 56 depend from Claim 1 and are therefore patentable for at least the reasons given above for independent Claim 1. New independent Claim 57 includes the same or similar recitations as the recitations underlined above for amended Claim 23. Based at least on the above reasons with respect to Claim 23, Applicants’ Claim 57 does not lack novelty and is patentably distinct over Hensley.

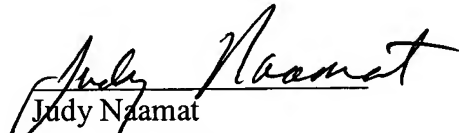
Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that none of the references of record, considered individually or in combination, in whole or in part, disclose or suggest the present invention as claimed. Therefore, all claims now pending in this application, namely Claims 1-27 and 29-57, are now in condition for allowance.

Accordingly, early and favorable consideration of this application is respectfully requested.

Should the Examiner believe that a telephone or personal interview may facilitate resolution of any remaining matters, he is respectfully requested to contact Applicants' undersigned attorney at the telephone number indicated below.

Respectfully Submitted,


Judy Naamat
Reg. No. 39,311
Agent for Applicants

CARTER DeLUCA, FARRELL & SCHMIDT, LLP
445 Broad Hollow Road
Suite 225
Melville, N.Y. 11747
Phone: (631) 501-5702
Fax: (631) 501-3526

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